Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementation of Sections 309(j) and 337 of the	)	
Communications Act of 1934 as Amended	)	WT Docket No. 99-87
	)	
Promotion of Spectrum Efficient Technologies	)	RM-9332
on Certain Part 90 Frequencies	)	

PETITION FOR RECONSIDERATION

Respectfully submitted,

THE PRIVATE WIRELESS MINING COALITION

Alan G. Fishel
Jeffrey E. Rummel
ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
1050 Connecticut Avenue, N.W.
Washington, D.C. 20036-5339
(202) 857-6450
(202) 715-8479

Its Attorneys

Dated: August 18, 2003

TABLE OF CONTENTS

SUMMARY

By this Petition, the Private Wireless Mining Coalition (the "Coalition") respectfully requests that the Commission reconsider the *Second Report and Order* released on February 25, 2003, in WT Docket No. 99-87 (RM-9332).

The Coalition respectfully submits that the Commission should reconsider the Second R&O and adopt rules consistent with the following proposals for non-public safety entities operating on private land mobile radio service frequencies in the 150-174 MHz and 421-512 MHz bands (the "Affected Bands"):

- If the proposed facilities are located solely in a Rural Area (as defined in the Petition), the Commission should accept for filing New 25 kHz Applications and Expansion 25 kHz Applications (as such terms are defined in the Petition) (collectively, "New/Expansion 25 kHz Applications") for such facilities ***until January 1, 2013 (the "12.5 kHz Conversion Date")***.

- If the proposed facilities are located in whole or in part in an Urban Area (as defined in the Petition), and the applicant obtains the consent from all stations that could be subjected to objectionable interference from the proposed facilities, the Commission should accept for filing New/Expansion 25 kHz Applications for such facilities ***until the 12.5 kHz Conversion Date***.

- If the proposed facilities are located in whole or in part in an Urban Area, and the applicant does not obtain the consent from all stations that could be subjected to objectionable interference, the Commission should accept for filing New/Expansion 25 kHz Applications for such facilities ***until one year after the 6.25 kHz Readily Available Date (as that term is defined in the Petition).***

- The Commission should permit the manufacture and importation of equipment capable of operating on a 25 kHz bandwidth in the Affected Bands ***until two years prior to the 12.5 kHz Conversion Date***.

With respect to the Coalition's proposal for proposed 25 kHz facilities located solely in Rural Areas, the record in this proceeding does not support prohibiting Rural Area licensees from filing New/Expansion 25 kHz Applications after January 16, 2004. Rather, congestion and spectrum scarcity concerns focus on urban areas. As such, unless reconsidered the Second R&O will *artificially constrain the use of uncongested spectrum* in direct contravention of the recommendations contained in the Commission's Spectrum Policy Task Force Report. In addition, even if there were public interest benefits supporting the prohibition on New/Expansion 25 kHz Applications by Rural Area licensees after January 16, 2004 -- which there are not -- they would be far outweighed by the substantial detriment to the public interest from imposing such restrictions on Rural Area licensees at such an early date. Specifically, these restrictions will create safety and environmental risks, unnecessarily and substantially disrupt company operations, and unnecessarily cause the Coalition Members and other similarly situated

companies tremendous economic harm with respect to their Rural Area systems. Because the Coalition's proposal regarding New/Expansion 25 kHz Applications reveals that the bases upon which the Commission rejected a market-based migration scheme were factually erroneous, adoption of the Coalition's proposal is in the public interest. In sum, requiring conversions to 12.5 kHz Equipment for Rural Area licensees anytime before the 12.5 kHz Conversion Date, and in fact in the very near future as the Commission has effectively done, is contrary to the Commission's conclusion that its narrowband migration rules would "account[] for the needs of 25 kHz incumbents" and would not be "unduly burdensome". Moreover, as shown in the Petition, it is also contrary to the public interest.

The Commission's narrowband migration requirements are aimed at ensuring the efficient use of shared spectrum and protecting the operations of co-channel and adjacent channel licensees that could be subject to objectionable interference. Accordingly, the Coalition respectfully requests that the Commission adopt rules that provide that for non-public safety entities, if overlap with an Urban Area exists, New/Expansion 25 kHz Applications will be accepted for filing by the Commission until the 12.5 kHz Conversion Date if the applicant obtains the consent from all stations that could be subjected to objectionable interference from the proposed facilities.

Because, as demonstrated in the Petition, 25 kHz licensees such as the Coalition Members are effectively required to attempt to convert to 12.5 kHz systems very shortly after the Commission's restrictions on the filing of New/Expansion 25 kHz Applications take effect, and assuming that the Commission adopts mandatory migration requirements for 6.25 kHz Equipment as a result of its *Second Further Notice Of Proposed Rule Making*, Urban Area (as well as Rural Area) 25 kHz licensees in the Affected Bands will be required to perform two narrowband conversions, first from 25 kHz to 12.5 kHz, and second from 12.5 kHz to 6.25 kHz. *Each* of these mandatory conversions has the potential - depending on the size of the affected system - to cost *millions of dollars*. As to Urban Area licensees, to avoid this inequitable result, the Coalition submits that if overlap with an Urban Area exists and the applicant does not obtain the consent from all stations that would be subjected to objectionable interference, New/ Expansion 25 kHz Applications should be accepted for filing by the Commission until one year after the "6.25 kHz Readily Available Date" (as that term is defined in the Petition).

The Coalition's proposal will permit Rural Area licensees (and Urban Area licensees obtaining consent of affected stations) to continue to file New/Expansion 25 kHz Applications in the Affected Bands until the 12.5 kHz Conversion Date, which is currently January 1, 2013. However, under the Second R&O, the Commission has prohibited - as of January 1, 2008 - the manufacture and importation of equipment capable of operating on a 25 kHz bandwidth in the Affected Bands. Unless the cut-off date for the manufacture and importation of 25 kHz-capable equipment is extended, the additional flexibility afforded to these licensees by the Coalition's proposal will be impacted, as they will be unable to get the equipment necessary to continue to operate in accordance with the terms of the Coalition's Proposal. Accordingly, the Coalition respectfully submits that the Second R&O should be reconsidered so that the manufacture and importation of equipment capable of operating on a 25 kHz bandwidth in the Affected Bands will be permitted until two years prior to the 12.5 kHz Conversion Date.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementation of Sections 309(j) and 337 of the	)	
Communications Act of 1934 as Amended	)	WT Docket No. 99-87
	)	
Promotion of Spectrum Efficient Technologies	)	RM-9332
on Certain Part 90 Frequencies	)	

PETITION FOR RECONSIDERATION

The Private Wireless Mining Coalition (the "Coalition"),[1] by its attorneys and pursuant to 47 C.F.R. §1.429, hereby submits this Petition For Reconsideration ("Petition") of the *Second Report and Order* released on February 25, 2003, in the above-captioned proceeding.[2]

For all of the reasons set forth herein, the Coalition respectfully submits that the Commission should reconsider the Second R&O and adopt rules consistent with the following proposals for non-public safety entities operating on private land mobile radio service ("PLMRS") frequencies in the 150-174 MHz and 421-512 MHz bands (the "Affected Bands"):

- If the proposed facilities are located solely in a Rural Area (as defined herein), the Commission should accept for filing New 25 kHz Applications[3] and Expansion 25 kHz Applications[4] for such facilities ***until the 12.5 kHz Conversion Date***[5].

---

[1] As described herein, the Coalition is comprised of the following mining company members ("Members"): (i) Phelps Dodge Corporation and its various North American mining subsidiaries (collectively, "Phelps Dodge"); (ii) Barrick Goldstrike Mines Inc. ("Barrick"); and (iii) BHP Billiton, New Mexico Coal.

[2] "Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended; Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies", Second Report and Order And Second Further Notice Of Proposed Rule Making, WT Docket No. 99-87, RM-9332, FCC 03-34 (rel. February 25, 2003) ("Second R&O"). The Second R&O was published in the Federal Register on July 17, 2003 (68 Fed.Reg. 42296). As such, the instant Petition is timely filed pursuant to 47 C.F.R. §§1.4(b), 1.429.

[3] For the purposes of this Petition, the term "New 25 kHz Application" will be defined as an application requesting Commission authority to operate a new station on the Affected Bands utilizing channels with a bandwidth exceeding 11.25 kHz. Equipment operating at one voice path per 25 kHz of spectrum will be referred to herein as "25 kHz Equipment". Equipment operating at one voice path per 12.5 kHz of spectrum will be referred to herein as "12.5 kHz

- If the proposed facilities are located in whole or in part in an Urban Area (as defined herein), and the applicant obtains the consent from all stations that could be subjected to objectionable interference from the proposed facilities, the Commission should accept for filing New/Expansion 25 kHz Applications for such facilities ***until the 12.5 kHz Conversion Date.***

- If the proposed facilities are located in whole or in part in an Urban Area (as defined herein), and the applicant does not obtain the consent from all stations that could be subjected to objectionable interference, the Commission should accept for filing New/Expansion 25 kHz Applications for such facilities ***until one year after the 6.25 kHz Readily Available Date (as that term is defined herein).***

- The Commission should permit the manufacture and importation of equipment capable of operating on a 25 kHz bandwidth in the Affected Bands ***until two years prior to the 12.5 kHz Conversion Date.***

The Coalition Members are affiliated with some of the largest mining companies in the world, each of which is licensed to operate PLMRS facilities in the Affected Bands. Collectively, the Coalition Members hold more than 250 Commission licenses in the Affected Bands that authorize the operation of more than 6,000 radio units, including base stations, repeaters, mobiles and portables. Several thousand of these units are 25 kHz Equipment. The Coalition Members are as follows:

- Phelps Dodge

  Phelps Dodge Corporation, which is headquartered in Phoenix, Arizona, is the world's second-largest producer of copper. In 2002, Phelps Dodge produced approximately 50% of the copper mined in the United States. A majority of Phelps Dodge's mining operations are located in New Mexico and Arizona, often in remote, mountainous locations. Phelps Dodge's mine in Morenci, Arizona (the "Morenci Mine"), is the largest copper mine in North America, covering a 5x3 mile area. Phelps Dodge holds more than

---

Equipment". Equipment operating at one voice path per 6.25 kHz of spectrum will be referred to herein as "6.25 kHz Equipment".

[4] For the purposes of this Petition, the term "Expansion 25 kHz Application" will be defined as an application requesting Commission authority to modify an existing station on the Affected Bands utilizing channels with a bandwidth exceeding 11.25 kHz so that - if approved - the subject station's existing authorized interference contour would be increased. Collectively, New 25 kHz Applications and Expansion 25 kHz Applications will be referred to as "New/Expansion 25 kHz Applications.

[5] For the purposes of this Petition, the "12.5 kHz Conversion Date" is defined as January 1, 2013.

230 licenses in the Affected Bands.[6] These licenses are associated with approximately 5,000 base stations, repeaters, mobile and portable units, upon which more than 5,000 Phelps Dodge employees rely for two-way wireless communications.

- Barrick

  Barrick, headquartered in Toronto, Canada, is one of the largest gold mining companies in the world. In the United States, Barrick operates more than 1,000 base stations, repeaters, mobile and portable units on frequencies in the Affected Bands. More than 75% of these units are single mode 25 kHz Equipment. Over 1,800 employees at three mining sites in Nevada rely on these 25 kHz units for two-way wireless communications.

- BHP Billiton, New Mexico Coal

  BHP Billiton, New Mexico Coal, part of BHP Billiton Energy Coal (the world's largest producer of steam coal), currently operates two mine sites (BHP Navajo Coal Company and San Juan Coal Company) in northwest New Mexico. The coal from these two mine operations supplies power plants for Arizona and New Mexico Public Service Companies, generating a total of 3600 megawatts of electricity. The Commission licenses held by BHP Billiton, New Mexico Coal are associated with approximately 650 base stations, repeaters, mobile and portable units, upon which more than 900 employees rely for two-way communications. At the present time, more than 90% of the radio equipment used by BHP Billiton, New Mexico Coal is single-mode 25 kHz Equipment.

I. For Proposed Facilities Located Solely In Rural Areas, The Commission Should Reconsider The Second R&O And Accept For Filing New/Expansion 25 kHz Applications Until The 12.5 kHz Conversion Date

For proposed 25 kHz facilities located solely in Rural Areas (as defined herein), the public interest dictates that the Commission reconsider its decision in the Second Report and Order in which it prohibited the filing of New/Expansion 25 kHz Applications after January 16, 2004.[7]

---

[6] Phelps Dodge Commission licensees include Phelps Dodge Corporation, Phelps Dodge Morenci, Inc., Phelps Dodge Sierrita, Inc., Phelps Dodge Miami, Inc., Phelps Dodge Industries, Inc., Phelps Dodge Hidalgo, Inc., Phelps Dodge Chino, Inc., Phelps Dodge Bagdad, Inc., Phelps Dodge Ajo, Inc., Phelps Doge Tyrone, Inc., Phelps Dodge Refining Corp., Cyprus Tohono Corporation, Cyprus Climax Metals Company, Climax Molybdenum Company, Apache Nitrogen Products Inc., and Amax Metals Recovery Inc.

[7] Pursuant to the Second R&O, the Commission prohibited the filing of New/Expansion 25 kHz Applications as of six months from the July 17, 2003, publication of the Second R&O in the Federal Register.

Instead, the Commission should permit non-public safety applicants to file New/Expansion 25 kHz Applications until the 12.5 kHz Conversion Date so long as the proposed facilities are located solely in a Rural Area. The Coalition submits that proposed 25 kHz facilities in the Affected Bands should be deemed to be located in a "Rural Area" if both of the following are true: (i) the area of operation of the proposed facilities does not overlap a circle with a radius of 113 km (70 mil.) from the geographic coordinates specified for the urban areas listed in 47 C.F.R. §90.741[8] ("70 Mile Urban Area Contours"); and (ii) the service area contour of the proposed facilities also does not overlap any 70 Mile Urban Area Contours.

As shown below, the public interest fully supports the Coalition's request for reconsideration on this issue because:

- For Rural Area systems, there are no compelling public interest benefits supporting the Commission's prohibitions on the filing of New/Expansion 25 kHz Applications after January 16, 2004.
- For Rural Area systems, prohibiting the filing of New/Expansion 25 kHz Applications after January 16, 2004 will create safety and environmental risks and unnecessarily and substantially disrupt company operations.
- Prohibiting the filing of New/Expansion 25 kHz Applications after January 16, 2004 for Rural Area systems will unnecessarily cause 25 kHz licensees such as the Coalition Members tremendous economic harm.

A. For Rural Area Systems, There Are No Compelling Public Interest Benefits Supporting The Commission's Prohibitions On The Filing Of New/Expansion 25 kHz Applications After January 16, 2004

The record in this proceeding does not support prohibiting Rural Area licensees from filing New/Expansion 25 kHz Applications after January 16, 2004. In its recent *Spectrum*

[8] For the purposes of this Petition (i) *"area of operation"* is the area of operation specified at Item 4 of an applicant's Schedule D of FCC Form 601; and (ii) *"service area contour"* is the 37 dBu contour for VHF stations, and the 39 dBu contour for UHF stations. See, e.g., 47 C.F.R. §90.187(b)(2)(iii). In light of this definition, an "Urban Area", for the purposes of this Petition, will be defined as an area located outside a circle with a radius of 113 km (70 mil.) from the geographic coordinates specified for the urban areas listed in 47 C.F.R. §90.741.

Policy Task Force Report,[9] the Commission itself warned against adopting uniform regulations for licensees in urban and rural areas, given that concerns regarding spectrum congestion are typically limited to urban areas. In fact, the Commission expressly cautioned against constraining the use of uncongested spectrum. Specifically, the Commission concluded as follows:

> [T]he distinction between high- and low-congestion areas does not necessarily require non-uniform rules for the latter, **so long as the rules do not artificially** cause spectrum congestion or **constrain the use of uncongested spectrum**. **Interference and other technical rules should generally be calibrated to conditions in areas where spectrum is likely to be in the greatest demand and the most congested, which will typically be urban areas.**[10]

Indisputably, and as the record in this proceeding indicates, congestion and spectrum scarcity concerns focus on urban areas. Accordingly, any attempt to constrain the use of spectrum in Rural Areas as early as January of next year, as the Second R&O does, with respect to New/Expansion 25 kHz Applications, should be reconsidered. Otherwise, the Second R&O will *artificially constrain the use of uncongested spectrum* in direct contravention of the recommendations contained in the Task Force Report.

In fact, not only is the Second R&O in contravention of the Task Force Report as to this matter, it is also greatly contravenes the public interest. There simply are no significant public interest benefits supporting the prohibition on New/Expansion 25 kHz Applications by Rural Area licensees after January 16, 2004. Moreover, even if there were some public interest benefits -- which there are not -- they would be far outweighed by the substantial detriment to the public interest from imposing such restrictions on Rural Area licensees at such an early date. Unless reconsidered, as shown below, these restrictions will create safety and environmental risks, unnecessarily and substantially disrupt company operations, and unnecessarily cause the

---

[9] "Spectrum Policy Task Force Report", ET Docket No. 02-135 (November 1, 2002) (emphasis added) ("Task Force Report").

Coalition Members and other similarly situated companies tremendous economic harm with respect to their Rural Area systems.

Not only are the restrictions on rural licensees discussed above impermissibly overbroad,[11] the (i) substantial disparity in congestion in rural and urban areas; and (ii) the fact that rural licensees are more likely than urban licensees to lack reliable, if any, cellular or PCS coverage in the event of a system disruption caused by system conversions, collectively demonstrates that licensees operating 25 kHz systems in rural areas are not "similarly situated" with licensees operating 25 kHz systems in congested, urban areas. As such, the Commission is not required to impose -- and indeed must avoid imposing in circumstances such as this -- the same licensing restrictions on both groups.[12]

In addition, because the Coalition's proposal regarding New/Expansion 25 kHz Applications reveals that the bases upon which the Commission rejected a market-based migration scheme were factually erroneous, adoption of the Coalition's proposal is in the public interest for this reason as well. Specifically:

- The Coalition's proposal presents no difficulty in "defining a market's location" or with respect to frequency coordination[13] because the proposal contains a bright line test for the rural/urban distinction. Specifically, a proposed 25 kHz facility would be considered to be in a "Rural Area" if the area of operation of the proposed facilities and the service area contour of the proposed facilities do not overlap any 70 Mile Urban Area Contours (as previously defined herein).

- The Coalition's proposal also demonstrates that a market-based migration can satisfactorily address situations where "radio systems are integrated across all geographic

---

[10] Id. at p. 59 (emphasis added).

[11] Rules determined to be "overbroad means of promoting the public interest" must be rejected by the Commission. See "Review of the Commission's Regulations Governing Television Broadcasting; Television Satellite Stations Review of Policy and Rules", Report and Order, 14 FCC Rcd 12903, ¶89 (1999); "Petitions for Reconsideration of the Second Memorandum Opinion and Order, Service Rules for the 746-764 and 776-794 MHz Bands and Revisions to Part 27 of the Commission's Rules", Third Memorandum Opinion and Order, 17 FCC Rcd 13985, ¶25 (2002).

[12] See Melody Music, Inc. v. FCC, 345 F.2d 730 (D.C. Cir. 1965).

[13] Second R&O at ¶15 (citing Comments of PCIA and ITA).

areas", or where "certain licensees may operate communications systems in various markets that cross more than one geographic area".[14] In this regard, the Coalition's proposal makes it clear that if proposed facilities are partly in an Urban Area, they will be treated as being in an Urban Area under the proposal. Therefore, the proposal directly addresses the above concerns of commenters.[15] **Moreover, the Coalition's proposal also recognizes the critical fact, which the Second R&O does not, that proposed facilities of applicants that are located solely in a Rural Area (which do not have significant congestion concerns) should not be treated like they are in Urban Areas simply because some other companies have systems that cross geographic areas.**[16]

- Finally, the Coalition's proposal also demonstrates that a market-based narrowband migration would not "delay [n]or impede the most efficient use of spectrum"[17] because the proposal will treat proposed facilities that are even partially in Urban Areas as being in Urban Areas. Moreover, the Coalition's proposal will ensure that the recommendations of the Commission's Task Force Report, to forbear from constraining the use of uncongested spectrum, will not go unheeded.

B. For Rural Area Systems, Prohibiting The Filing Of New/Expansion 25 kHz Applications After January 16, 2004 Will Create Safety And Environmental Risks And Unnecessarily And Substantially Disrupt Company Operations

As shown below, prohibiting New/Expansion 25 kHz Applications as soon as January of next year will in effect require the Coalition Members to immediately begin attempting to fully convert their 25 kHz systems to 12.5 kHz in Rural Areas, and to complete such conversions very shortly after the Commission's restrictions take effect. Otherwise, their systems' interoperability will be wholly undermined. But, as further demonstrated below, such large scale, complex conversions present serious safety and operational risks that Rural Area licensees should not be unnecessarily subjected to at this time. In addition, mandating such

---

[14] Id. (citing Supplemental Comments of ITA).

[15] For example, by requiring that the *area of operation* of a proposed 25 kHz facility not overlap with an urban area, the Coalition's proposal would not define as rural an applicant's whose proposed area of operation (as specified in Item 4 of Schedule D of FCC Form 601) is specified as "Nationwide (N)" or "Continental US (U)". In addition, the Coalition's proposal would, in many cases, also not define as rural an applicant's whose proposed area of operation is specified as "Statewide Area of Operation (S)".

[16] Third, for companies that may operate numerous 25 kHz systems across the country, where each system operates independently from the others, it makes perfect sense under those circumstances for a proposed 25 kHz facility in one system to be defined as urban while a proposed 25 kHz facility in a separate system of that company be defined as rural.

[17] Second R&O at ¶15.

overwhelming conversions in the timeframe effectively required by the Second R&O only further exacerbates these safety and operational risks.

1. The Fully Functional and Seamless Operation of PLMRS Systems is Critical to the Safety of Employees of Mining and Other Companies that Operate in Rural Areas, as well as to the Operations of such Companies and their Ability to Respond Promptly to Environmental Emergencies

PLMRS systems provide critical safety functions for many industries, including mining, and are invaluable in helping to ensure the safety of employees using such systems, as well as enabling these companies to respond promptly to environmental emergencies. There are tremendous public interest benefits in maintaining the seamless operation of these PLMRS systems in Rural Areas.

The Commission itself has recognized the critical safety functions served by PLMRS systems and the need to maintain seamless communications with respect to such systems. In its July, 2002 *Staff Report* addressing spectrum use by the energy, water and railroad industries, the Commission concluded that "any degradation or interruption in the wireless radio systems used by the industries during emergency periods could significantly hamper the efforts of emergency responders and law enforcement, whose success can depend upon the swift and timely receipt of critical information."[18]

With respect to the mining industry, a majority of operations are located in remote, hostile and often mountainous terrain, where such concerns are particularly acute. Mining employees, by necessity, are frequently isolated, either during transport between sites or at the bottom of mining pits. These pits themselves can be thousands of feet deep. Moreover, mining companies operate 24 hours per day/7 days per week, so the work in the field is also being done at night.

[18] "FCC Staff Report On NTIA's Study Of Current And Future Spectrum Use By The Energy, Water And Railroad Industries", p.6 (July 30, 2002) ("Staff Report").

Even where all appropriate safety precautions are taken, it is generally understood that, for many reasons, including the heavy industrial equipment used by these employees (e.g., blasting equipment, large haul trucks, road graders, huge electric shovels, front-end loaders), the chemicals used in processing raw materials, and the presence of high voltage cables, these operations involve considerable risks to the employees of mining companies as well as to the environment. Accordingly, prompt response to accidents, injuries or other emergencies is vitally important to the safety of the employees and the surrounding environment. Therefore, effective and seamless communications are paramount.

And that is why PLMRS systems play such a critical role. They are often the only effective mode of communication at mining sites in Rural Areas. They often provide mining employees with the ability to prevent accidents. In addition, these PLMRS systems permit employees to communicate instantly in the event of an accident, injury or other emergency. These systems can often be the difference between life, and death or significant injury. PLMRS systems can also greatly minimize the impact on the surrounding terrain by ensuring a prompt response to environmental emergencies.

In many cases, "mining towns" are inhabited and operated solely by a mining company and its employees, and such towns are the only human settlements in the area. Due to the remoteness of mining operations, many local and state fire, air and ground rescue, EMS, HAZMAT and law enforcement (collectively, "Public Safety") entities are not located close enough to be the first responders in emergency situations. As a result, many mining companies have established and maintain internal emergency response units ("Internal Safety Units") that act as "first responders" in a majority of emergencies. Using PLMRS systems operating on the Affected Bands, employees convey emergency messages to Internal Safety Units either directly or through security dispatch centers.

Upon arriving at the scene of an emergency, Internal Safety Units rely on PLMRS systems to continuously communicate with Public Safety entities. For example, at an accident site, Internal Safety Units use these wireless systems to notify the appropriate Public Safety (i.e., hospital or ambulance) units of the nature of injuries that have been suffered, and to receive instructions and orders regarding patient treatment and transport.

If transport of a victim is necessary, the Internal Safety Unit and the Public Safety Unit will often drive toward each other to expedite the transfer of the victim, and each unit will use the PLMRS system to facilitate the identification of an appropriate rendezvous point while continuing to discuss the appropriate course of treatment and the victim's status.[19]

PLMRS systems also play a significant role in protecting the environment. Mining activities require the use of many hazardous materials. It is vital that any problems associated with chemical spills, such as a release of sulfuric acid, be immediately communicated to the appropriate Internal Safety Unit or Public Safety entity. Without such instant communication, the problem may not be contained and cleaned-up in time to avoid extensive environmental damage.

In addition, the PLMRS systems operated by the Coalition Members are absolutely essential to the day-to-day operations of these businesses. At any given mine site, there is usually an operations and a maintenance group. At larger sites, hundreds and sometimes thousands of employees from these groups must coordinate their interdependent activities through the use of PLMRS systems on the Affected Bands. The operations group normally engages in, among many other duties, blasting activities, operating large haul vehicles and huge electric shovels, and performing what is often very difficult road grading. Maintenance groups

[19] In addition, Internal Safety Units responding to a fire in a remote location will use the PLMRS systems to help Public Safety fire departments locate the fire and to request any additional support that may be required such as rescue or HAZMAT services.

conduct repair work with regard to, among other things, trucks, electric shovels and high voltage lines. Members of both of these groups regularly work in the mines themselves and must coordinate with employees inside and outside of these mines, which can stretch for many miles. Constant communication among and between employees in these groups is essential to a multitude of tasks that must be performed in virtually any mining operation.

Accordingly, the critical role of PLMRS systems in ensuring the safety of employees, responding to environmental emergencies and enabling the personnel to perform the day-to-day operational activities of large mining companies is indisputable. And just as clearly, all of this becomes unraveled, and safety and operations are substantially undermined, if the seamless interoperability between and among employees, internal safety units and Public Safety entities, is disrupted.

2. The Commission's Decision in the Second R&O will in effect Require Companies such as the Coalition Members to Immediately Begin Attempting to Fully Convert their 25 kHz Rural Area Systems to 12.5 kHz, and to Complete such Conversions Very Shortly After the Commission's Restrictions on the Filing of New/Expansion 25 kHz Applications Take Effect

As described below, unless reconsidered, the Commission's decision to prohibit the filing of New/Expansion 25 kHz Applications after January 16, 2004 will have the effect of requiring companies such as the Coalition Members to immediately begin attempting to fully convert their 25 kHz Rural Area systems to 12.5 kHz, and to attempt to complete such conversions very shortly after the Commission's restrictions on the filing of New/Expansion 25 kHz Applications take effect.

a. Coalition Members and many other mining companies frequently must file new and expansion applications not out of convenience -- but out of necessity -- and therefore will have to continue filing such applications even after January 16, 2004

In light of the foregoing, mining companies must seek to ensure that employees in the field can at all times communicate with others employees, including safety personnel. Therefore, the RF equipment is placed where it will maximize the likelihood of successful communications.

To ensure the best possible RF coverage into active mine pits, mining companies ordinarily locate base/dispatch and repeater facilities in close proximity to the edge of the pit (known as the pit perimeters). To place those facilities anywhere else would compromise communications to and from the pit, and therefore jeopardize the safety of employees and their ability to perform their duties.

But the depth as well as the circumference of mining pits constantly change, as mining inherently involves altering the land's topography. As the mining operations progress, and the materials being mined at a particular pit location have been exhausted, the pit is expanded by digging into an area where additional materials are believed to be located.

Expanding the size of a mine pit necessarily requires expanding the pit perimeter. However, as discussed above, base/dispatch and repeater facilities are ordinarily placed in close proximity to the edge of a pit to maximize RF coverage and employee communications. Therefore, when a pit perimeter is expanded, the authorized PLMRS facilities located at the pit perimeter must be moved. In short, as normal mining operations progress and pits expand, mining companies have no viable alternative but to relocate facilities constructed at the pit perimeter and to file license modification applications with the Commission to ensure uninterrupted RF coverage into the pit. In almost every case where a modification application is

filed with the Commission to accommodate a pit expansion, the interference contour of the originally authorized facilities will be expanded.

Similarly, where (i) additional or improved RF coverage is required at a mine site for mining or dumping activities in a new portion of the property; (ii) additional facilities are required at a site for environmental monitoring and process control activities; or (iii) where additional lines of communication are required for discrete groups of employees (e.g., geological services or foreman-to-foreman), mining companies have no choice but to file new license applications, or depending on the situation, modification applications.

As demonstrated above, mining companies, such as the Coalition Members, must often file new and expansion applications, not out of convenience - but out of necessity -- so as to not jeopardize employee safety or compromise operations. This need to file new and expansion applications will continue to exist after January 16, 2004. In this regard, the continued licensing flexibility required by mining companies, such as the Coalition Members, to address safety concerns and operational issues, is distinguishable from other situations where the Commission has substantially restricted site-licensed incumbents to the filing of "fill-in" applications to address "dead spots" in coverage.[20]

b. Seamless interoperability is critical to the safety of employees, the environment and the operations of mining companies, and therefore all equipment on a PLMRS system must be compatible (i.e., the partial integration of 12.5 kHz Equipment into 25 kHz Rural Area systems presents risks to the interoperability of such systems)

As discussed above, in a typical 25 kHz system operated by a Coalition Member, operations division employees must be able to communicate with each other at all times in order to perform their duties and respond to emergencies, while maintenance

[20] See e.g., "Amendment of Part 90 of the Commission's Rules to facilitate future development of SMR Systems in the 800 MHz frequency band", 11 FCC Rcd 1463, ¶86 (1995) (cited by the

division employees must have the same continuous ability to communicate among themselves. In addition, as also described above, operations and maintenance divisions require unimpaired wireless communications between them to prevent accidents and coordinate their interdependent and essential activities. Furthermore, both operations and maintenance divisions must be able to immediately obtain access to Internal Safety Units to ensure a prompt "first response" to employee or environmental accidents, particularly in Rural Areas where Public Safety units are often not closely situated. Finally, in every context, Internal Safety Units must have full connectivity to Public Safety Entities.[21]

But the *only way* that all of these interdependent groups can communicate with each other is if their PLMRS units are compatible. Yet, single-mode units operating at 25 kHz are not compatible with units operating at 12.5 KHz. Therefore, requiring the use of 12.5 kHz Equipment in connection with new and expansion applications in Rural Areas for companies such as the Coalition Members necessarily results in a "Domino Effect." That is, such a requirement will in effect mandate massive conversions that will in any context present significant safety and environmental risks and disrupt company operations. For example, if a Coalition Member were to be required to use 12.5 kHz Equipment to relocate a repeater site used

---

Commission in the Second R&O at ¶24).

[21] For example, Phelps Dodge's Morenci Mine *alone* is supported by nearly 3,000 base stations, repeaters and portable/mobile units upon which more than 1,500 employees rely for their wireless communications. Because most of these units operate with single mode 25 kHz capability only (i.e., they are not dual mode units capable of being programmed for 12.5 kHz operation), all operations and maintenance division employees at the Morenci Mine are required to transmit on a 25 kHz bandwidth in order to ensure seamless interoperability between them. The employees at the Morenci Mine are supported by an internal Security Division, which coordinates the activities of an internal emergency response and rescue team, as well as an internal fire department, all of which must also operate on 25 kHz Equipment to ensure that emergency calls initiated by employees on 25 kHz radios are received and responded to immediately. These internal safety units communicate with Public Safety entities that operate exclusively on 25 kHz Equipment.

by thousands of operations division employees as part of a large, highly integrated 25 kHz Rural Area system the following would occur:

(i) Once the repeater is relocated using 12.5 kHz Equipment, the thousands of single mode 25 kHz mobile and portable units used by the operations division would no longer be compatible with the repeater equipment, leaving employees in the operations division unable to communicate on the 25 kHz system unless and until their 25 kHz Equipment is replaced;

(ii) Thousands of employees in the Member's maintenance division, still using single mode 25 kHz Equipment, would not be able to communicate with the operations division unless and until the thousands of 25 kHz mobile and portable units used by the maintenance division (including all associated base and repeater stations) are replaced;

(iii) The thousands of employees in the maintenance and operations divisions, now using 12.5 kHz Equipment, would no longer be able to communicate emergency messages to the company's Internal Safety Units unless and until the 25 kHz Equipment of the Internal Safety Units is replaced.

Finally, not only would the partial integration of 12.5 kHz Equipment into a 25 kHz system require a massive conversion to ensure full interoperability within the company, but also the company would need to ensure that it maintained full interoperability throughout this process with Public Safety. This itself can present multiple logistic and other difficulties that must be overcome, including installing Coalition Member's equipment in Public Safety's dispatch centers and emergency vehicles, letters of consent from Coalition Members to Public Safety for use and operation of Coalition Members' licenses and equipment, modification of Public Safety operational procedures to accommodate the change in Public Safety's operational environment, and possibly legislative changes.

c. Accordingly, the Coalition Members will in effect be required to immediately begin attempting to fully convert their 25 kHz systems to 12.5 kHz and to complete such conversion very shortly after the Commission's restrictions on the filing of such applications take effect in order to mitigate the risks to system interoperability and company operations

As demonstrated above, the Coalition Members have a continuing need to file new license and expansion applications after January 16, 2004. Accordingly, unless

the Second R&O is reconsidered, the Coalition Members will be required to immediately begin attempting to undertake full-scale conversions of their existing 25 kHz systems in an effort to become 12.5 kHz compatible very shortly after the Commission's restrictions on the filing of New/Expansion 25 kHz Applications take effect. A Coalition Member may, for example, in connection with such large scale conversions attempt to convert its entire 25 kHz systems so that all base station, repeater, portable and mobile units are dual-mode 25 kHz/12.5 kHz equipment.

As described in the next section, however, such massive conversions inevitably present serious safety and operational risks that Rural Area licensees should not be subjected to at this time. Moreover, requiring companies such as the Coalition Members to attempt to undertake such full-scale conversions of their existing 25 kHz Rural Area systems in such a compressed timeframe even further exacerbates the safety and operational risks.

3. Massive Conversions Present Serious Safety and Operational Risks that Rural Area Licensees Should Not Be Unnecessarily Subjected to at this Time, and Mandating such Overwhelming Conversions in the Timeframe Effectively Required by the Second R&O Only Further Exacerbates these Safety and Operational Risks

Full scale conversions of multiple large 25 kHz Rural Area systems comprised of thousands of base, repeater, mobile and portable units cannot be safely or practicably completed by very shortly after the Commission's restrictions on the filing of New/Expansion 25 kHz Applications take effect. In fact, not only is it unsafe and impracticable to perform such massive conversions within the compressed timeframe effectively required by the Second R&O, such conversions should not be compelled *at all* in Rural Areas prior to the 12.5 kHz Conversion Date. As discussed earlier, there is no compelling public interest benefit to support the imposition of regulatory restrictions in Rural Areas at any time prior to the 12.5 kHz Conversion Date. On the other hand, there are compelling public interest reasons to support the

Commission's forbearing from restrictions that lead to premature massive conversions in Rural Areas.

Massive conversions create considerable risks to safety and operations, and are tremendously burdensome and disruptive, regardless of when they are performed, and therefore should not be compelled by the Commission until absolutely necessary for a particularly geographic region. Given the highly integrated nature of these systems, their dense concentration of radio units, the high level of production activity at each mine site, and ever-present safety concerns, each full scale conversion would require a tremendous allocation of human and financial resources to design and implement a conversion plan that seeks to mitigate risks to safety and operations as much as possible.[22] At every step in this complex process, the Coalition Members will be required to anticipate and/or resolve, through operational or engineering means, very serious interoperability problems. Every conversion process will have to be managed incrementally so as to minimize disruption to mines and processing plants in full production. Despite these best efforts, the activities at the mining pits or associated processing plants may at various times have to either be shut down or substantially decreased to accommodate the conversion itself and to mitigate safety risks. This disruption to operations is extremely significant, particularly for companies with very large-scale operations like the Coalition Members, who operate 24 hours a day, 7 days a week.

---

[22] Any reasonable conversion plan would include critical preliminary internal processes (i.e., surveying equipment in operation, verifying existing inventory, submitting requests for quotes to vendors, identifying all funding requirements, submitting and receiving appropriate funding requests, interviewing potential contractors, negotiating contracting agreements), a variety of additional preparatory steps (i.e., preparation and submission of Commission applications, placing equipment orders while allowing for appropriate lead times, conversion team orientation – including OSHA/MSHA training, comprehensive mapping of existing system interconnectivity, scheduling) and the conversion process itself, including equipment programming, installation, testing and returning the system to full operation.

In addition, with conversions such as these, the safety risks cannot be eliminated. With partial shutdowns, disruptions, and the tremendous amount of coordination necessary, there will be temporary losses of interoperability, which as discussed earlier creates safety risks to both employees and the environment. Moreover, with the amount of work, coordination and complications these types of conversions involve, there can be human errors that lead to further safety and operations risks.

In addition, seeking to complete multiple full-scale conversions in the time periods effectively required by the Second R&O only exacerbates these inherent safety risks and operational disruptions. Requiring mining companies with Rural Area systems such as the Coalition Members to attempt to condense *all* aspects of their conversions into this period – for *all* of their Rural Area systems - will even further increase the likelihood of large-scale interoperability problems and therefore further increase safety risks to thousands of employees and the environment, and operational risks to the company operations. In addition, by attempting to condense *all* aspects of their conversions into this period – for *all* of their Rural Area systems – the Coalition Members believe that the number and duration of major disruptions and shut-downs to fully operational mine pits and processing plants will be further increased, at an even greater cost to the companies.

In sum, requiring conversions to 12.5 kHz Equipment for Rural Area licensees anytime before the 12.5 kHz Conversion Date, and in fact in the very near future as the Commission has effectively done, is contrary to the Commission's conclusion that its narrowband migration rules would "account[] for the needs of 25 kHz incumbents" and would not be "unduly burdensome".[23] Moreover, as shown above, it is also contrary to the public interest.

---

[23] Second R&O at ¶¶ 23-24.

C. Prohibiting The Filing Of New/Expansion 25 kHz Applications After January 16, 2004 For Rural Area Systems Will Unnecessarily Cause 25 kHz Licensees Like The Coalition Members Tremendous Economic Harm

In the Second R&O, the Commission explained that its narrowband migration requirements were intended to "strike a balance between the budgetary exigencies surrounding equipment costs and [the Commission's] goal of promoting spectral efficiency in a fairly expeditious manner."[24] The Commission further stated that the rules it implemented "afford consideration of equipment lifespan."[25] For companies such as the Coalition Members, this balance was not struck and consideration was not afforded to the lifespan of their equipment. The Commission acknowledged that commenters seeking implementation ranges of 3-5 years were requesting a "relatively brief transition",[26] and the Commission gave companies who will not need new or expansion applications approximately 10 years to fully (or close to fully) utilize their equipment. In contrast, companies such as the Coalition Members have in effect little time left to continue using their existing 25 kHz Equipment.

As discussed above, unless the Commission reconsiders its decision to prohibit the filing of New/Expansion 25 kHz Applications after January 16, 2004, the Coalition Members will in effect be required to attempt to complete full-scale system conversions for all of their Rural Area systems very shortly after that date. The Coalition Members estimate that in many cases a single system conversion could require an outlay *of several million dollars for new equipment alone*. Not only will mining companies such as the Coalition Members be required to incur these substantial costs for new equipment *at each large mining site*, they will be forced to discard thousands of units of fully operational 25 kHz equipment that are not even near the end of their expected lifespan. Given the lack of compelling public interest benefits supporting the

[24] Second R&O at ¶18.
[25] Id.
[26] Id. at ¶15.

prohibition on the filing of New/Expansion 25 kHz Applications after January 16, 2004 for Rural Area systems, requiring mining companies like the Coalition Members to incur such tremendous economic harm is certainly not justifiable.

Finally, if 25 kHz licensees such as the Coalition Members are effectively required to attempt to convert to 12.5 kHz systems very shortly after the Commission's restrictions on the filing of New/Expansion 25 kHz Applications take effect, and assuming that the Commission adopts mandatory migration requirements for 6.25 kHz Equipment as a result of its *Second Further Notice Of Proposed Rule Making*[27], ***25 kHz licensees in the Affected Bands will be required to perform two narrowband conversions ("Double Conversions"), first from 25 kHz to 12.5 kHz, and second from 12.5 kHz to 6.25 kHz.*** For 25 kHz licensees, including the Coalition Members, *each* of these mandatory conversions has the potential - depending on the size of the affected system - to cost *millions of dollars*.

As the American Petroleum Institute ("API") concluded in its comments: "[t]o require a conversion to 12.5 kHz channel bandwidth before the availability of 6.25 kHz equipment would require licensees to 'scrap' newly purchased systems before these systems need to be replaced," thereby placing "unduly harsh burdens on licensees."[28] API is undoubtedly correct on this point. Unless the Second R&O is reconsidered, the Commission will be placing the unduly harsh burden on the Coalition Members of unjustifiably requiring them and other 25 kHz licensees to pay many millions of dollars for two narrowband migrations.

Moreover, unless the Second R&O is reconsidered, Rural Area companies that would like to convert directly from 25 kHz Equipment to 6.25 kHz Equipment (or other spectrally efficient

---

[27] "Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended; Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies", Second Report and Order And Second Further Notice Of Proposed Rule Making, WT Docket No. 99-87, RM-9332, FCC 03-34 (rel. February 25, 2003) ("Second FNPRM").

[28] API March 5, 2001 Comments at 5.

technology) consistent with the Commission's long-term goal of a spectral efficient environment, will be prevented from doing so. Such a result is certainly contrary to the Commission's expressed desire to "promot[e] and facilitat[e] migration to narrowband technology."[29]

II. If Proposed Facilities Overlap With An Urban Area, The Commission Should Not Restrict The Filing Of New/Expansion 25 kHz Applications Prior To The 12.5 kHz Conversion Date If Consent Is Obtained From All Stations That Could Be Subjected To Objectionable Interference

The Commission's narrowband migration requirements are aimed at ensuring the efficient use of shared spectrum and protecting the operations of co-channel and adjacent channel licensees that could be subject to objectionable interference.

Accordingly, the Coalition respectfully requests that the Commission adopt rules that provide that for non-public safety entities, if overlap with an Urban Area exists, New/Expansion 25 kHz Applications will be accepted for filing by the Commission ***until the 12.5 kHz Conversion Date*** if the applicant obtains the consent from all stations that could be subjected to objectionable interference from the proposed facilities.[30]

---

[29] Second R&O, ¶23.

[30] Under this proposal, the following definitions will apply: "*Objectionable Interference*" would be considered to exist when the interference contour (19 dBu for VHF stations, 21 dBu for UHF stations) of the proposed 25 kHz station intersects the service contour (37 dBu for VHF stations, 39 dBu for UHF stations) of an existing station ("Existing Station") (See e.g., 47 C.F.R. §90.741); *Existing Station*" is defined as an existing co-channel station and an existing station that has an operating frequency 12 kHz or less from the proposed 25 kHz station (See e.g., 47 C.F.R. §90.741); "*Consent*" means written consent that specifically states all terms agreed to by the parties and is signed by the licensee of the Existing Station. The written consent must be maintained by the licensee proposing the New/Expansion Application and be made available to the Commission upon request. The submission of a coordinated application to the Commission under this rule must include a certification from the applicant that written consent has been obtained from all stations that would be subjected to objectionable interference from the proposed facilities, that the written consent documents encompass the complete understandings and agreements of the parties as to such consent; and that the terms and conditions thereof are consistent with the Commission's rules (See e.g., 47 C.F.R. §90.741).

III. If Consent Is Not Obtained From All Affected Stations, New/Expansion 25 kHz Applications For Proposed Facilities In An Urban Area Should Be Permitted Until One Year After The 6.25 kHz Certification Date Or One Year After 6.25 kHz Equipment Becomes Commercially And Readily Available If Such Occurs Later

For the same reasons that Rural Area licensees would be subject to Double Conversions (see Section I(C), *supra.*), the Second R&O would effectively cause many Urban Area licensees to face Double Conversions. To avoid this inequitable result, the Coalition submits that if overlap with an Urban Area exists and the applicant does not obtain the consent from all stations that would be subjected to objectionable interference, New/Expansion 25 kHz Applications should be accepted for filing by the Commission until one year after the "6.25 kHz Readily Available Date". The 6.25 kHz Readily Available Date shall mean the 6.25 kHz Certification Date or the date that 6.25 kHz Equipment is commercially and readily available if such is not the case on the 6.25 kHz Certification Date.[31]

IV. The Cut-Off Date For The Manufacture And Importation Of 25 kHz-Capable Equipment In The Affected Bands Should Be Extended To Two Years Prior To The 12.5 kHz Conversion Date

As discussed above, the Coalition's proposal will permit Rural Area licensees (and Urban Area licensees obtaining consent of affected stations) to continue to file New/Expansion 25 kHz Applications in the Affected Bands until the 12.5 kHz Conversion Date, which is currently January 1, 2013. However, under the Second R&O, the Commission has prohibited - as of January 1, 2008 - the manufacture and importation of equipment capable of operating on a 25

[31] The 6.25 kHz Certification Date is currently January 1, 2005. In an *ex parte* filing submitted to the Commission, Motorola has requested that the 6.25 kHz Certification Date be moved to *January 1, 2007.* See "*Ex Parte* Submission of Motorola, Inc.", WT Docket No. 96-86, WT Docket No. 99-87 (dated May 2, 2003). Based on information obtained by the Coalition Members from equipment vendors, and based on prior experience in the industry (See e.g. "Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems", Order To Stay, 17 FCC Rcd 14841 (2002) ("E911 Stay Order") (involving E911 Phase II implementation)), there is no reason to believe that the 6.25 kHz Readily Available Date will be the same date as the 6.25 kHz Certification Date, whether such date ultimately falls in 2005 (as decided by the Commission in the Second R&O), 2007 (as proposed

kHz bandwidth in the Affected Bands. Unless the cut-off date for the manufacture and importation of 25 kHz-capable equipment is extended, the additional flexibility afforded to these licensees by the Coalition's proposal will be impacted, as they will be unable to get the equipment necessary to continue to operate in accordance with the terms of the Coalition's Proposal.

Accordingly, the Coalition respectfully submits that the Second R&O should be reconsidered so that the manufacture and importation of equipment capable of operating on a 25 kHz bandwidth in the Affected Bands will be permitted until two years prior to the 12.5 kHz Conversion Date.

Conclusion

For the foregoing reasons, the Coalition Members respectfully request that the Commission reconsider the Second R&O in a manner consistent with this Petition.

Respectfully submitted,

THE PRIVATE WIRELESS MINING COALITION

By: _____

Alan G. Fishel
Jeffrey E. Rummel
ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
1050 Connecticut Avenue, N.W.
Washington, D.C. 20036-5339
(202) 857-6450

Its Attorneys

Dated: August 18, 2003

---

by Motorola) or later.